



SFA200NVX/SFA400NVX

Workload Accelerating NVMe Storage

Common Use Cases

The flexibility and capabilities of the SFA NVMe platforms lend themselves to a wide variety of applications:

- Artificial Intelligence
- Analytics
- Deep Learning
- Content Distribution
- High IOPs Telemetry



DDN Storage Fusion Architecture® (SFA®) appliances are purpose-built to deliver scalable flash performance and capacity to flexibly meet your changing business demands. The SFA NVMe platforms deliver 100% NVMe storage with multiple high-speed connectivity options. At up to 48GB/s, the 2U SFA NVMe platforms are the fastest storage solutions in the industry and are able to deliver up to 24 NVMe SSDs in a minimum form factor. Built with 2nd Gen Intel® Xeon® Scalable processors, this extreme level of performance density makes the SFA NVMe platforms ideal for data centers with limited space and requiring rock-solid high-performance flash in a scale-out architecture. Start with a single enclosure and scale limitlessly to meet file system or block requirements.

Blinding Performance that Scales on Demand

Whether you are accelerating an analytics workload, reducing latencies for tough NoSQL databases, or beginning a Deep Learning project with modest training sets, the SFA NVMe platforms are ideal as a cost-effective building blocks. Designed to get you the most out of your investment, the internal 192 lane PCIe Gen 3 fabric extracts the most performance from flash, enabling new bandwidth and IOPs use cases.

Small, Yet Powerful Flexibility

SFA NVMe platforms are available as block storage appliances and integrated high-performance file appliances. DDN's EXAScaler® and GRIDScaler® file systems enable the SFA NVMe storage building block model to scale-out the parallel file name space with maximal efficiency. Built, deployed, and supported by the experts in data intensive workloads, these appliances deliver the ultimate application and workload performance by fusing the advantages of DDN's SFAOS with industry leading parallel file systems.

Technical Specifications



SFA200NVX®



SFA400NVX®

System Features

Active/Active storage controllers

DeClustered RAID (DCR) supports erasure coding schemas:

RAID 6 8+2, 4+2; RAID 5 8+1, 4+1; RAID 1 1+1

Performance

Sequential read performance up to 24GB/s
 Sequential write performance up to 20GB/s
 Up to 1.5M IOPs

Sequential read performance up to 48GB/s
 Sequential write performance up to 40GB/s
 Up to 3M IOPs

CPUs per Appliance

2x 2nd Gen Intel® Xeon® Scalable processors

4x 2nd Gen Intel® Xeon® Scalable processors

Controller Host Ports per Appliance

Block: 4 x EDR/HDR100* InfiniBand
 Embedded: 4 x EDR/HDR100* or 40/100 GbE

Block: 8 x EDR/HDR100* InfiniBand
 Embedded: 8 x EDR/HDR100* or 40/100 GbE

Drive Support

24 x 2.5" dual port NVMe
 SFA400NVX can add up to four 90-bay SAS enclosures

24 x 2.5" dual port NVMe

Standard Software Features

LUN mapping and masking, intelligent write striping, read QoS, port zoning detection, data integrity check/correction, interface options (SSH to CLI, web-based GUI, Python API), state change messages (via e-mail, SNMP trap and syslog).

Available File System Appliances

EXAScaler ES200NVX
 GRIDScaler GS200NVX

EXAScaler ES400NVX
 GRIDScaler GS400NVX

Physical and Environmental Attributes

Dimensions

Height: 2RU rack mount 3.5" (89 mm)
 Width: 19" rack (482.6 mm)
 Depth: 33.5" (850 mm) without bezel

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Power/Cooling

Input Voltage: 200-240V 50/60 Hz
 Nominal Power: 675 W (empty); 1,275 W (max)

Power/Cooling

Input Voltage: 200-240V 50/60 Hz
 Nominal Power: 1,350 W (empty); 1,950 W (max)

Nominal Heat

2,303 BTU/hr (empty); 4,350 BTU/hr (max)
 Power Supplies: 2 hot swappable, redundant

Nominal Heat

4,606 BTU/hr (empty); 6,654 BTU/hr (max)
 Power Supplies: 2 hot swappable, redundant

Environment

Op Temp, Sea Level: 10-35 degC; Op Temp, 3000m: 10-28 degC; 20%-80% humidity range

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Weights

80 lbs/36 kg (empty); 90 lbs/41 kg (max)

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Safety

Agency Certifications UL, cUL, CE, FCC

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About DDN

DataDirect Networks (DDN) is the world's leading big data storage supplier to data-intensive, global organizations. DDN has designed, developed, deployed, and optimized systems, software, and solutions that enable enterprises, service providers, research facilities, and government agencies to generate more value and to accelerate time to insight from their data and information, on premise and in the cloud.

Product Specifications Subject to Change

*X-variant is HDR100 (releases begin Dec 2019), non-X remains EDR

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